FINDING OF NO SIGNIFICANT IMPACT/RATIONALE

EA No. NM-510-2006-0102

FINDING OF NO SIGNIFICANT IMPACT: I have reviewed this environmental assessment including the explanation and resolution of any potentially significant environmental impacts. I have determined the proposed action and all alternatives will not have significant impacts on the human environment and that preparation of an Environmental Impact Statement (EIS) is not required.

Rationale for Recommendations: The proposed action would not result in any undue or unnecessary environmental degradation. The proposed action will be in compliance with the Roswell Resource Management Plan and Record of Decision (October, 1997).

8/7/2006

/s/ T. R. Kreager

T. R. Kreager Date

Assistant Field Manager, Resources

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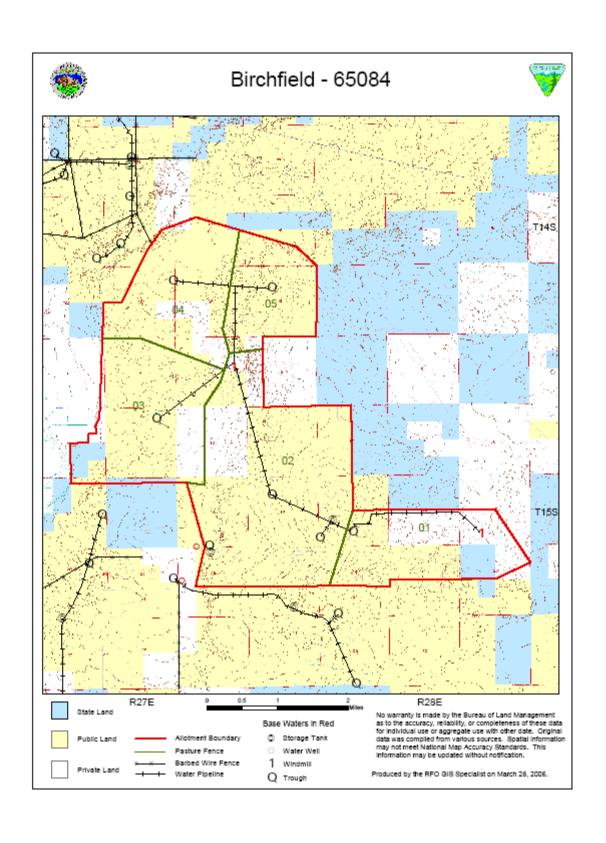
ENVIRONMENTAL ASSESSMENT for GRAZING AUTHORIZATION

ALLOTMENT 65084, SECTION 3
Portions of Township 14 & 15 South, Range 27 & 28 East

EA-NM-510-2006-0102

March 2006

U.S. Department of the Interior Bureau of Land Management Roswell Field Office Roswell, New Mexico



1. Introduction

When authorizing livestock grazing on public range, the Bureau of Land Management (BLM) has historically relied on a land use plan and environmental impact statement to comply with the National Environmental Policy Act (NEPA). A recent decision by the Interior Board of Land Appeals, however, affirmed that the BLM must conduct a site-specific NEPA analysis before issuing a permit or lease to authorize livestock grazing. This environmental assessment fulfills the NEPA requirement by providing the necessary site-specific analysis of the effects of issuing a new grazing lease on allotment #65084.

The scope of this environmental assessment is limited to the effects of issuing a new 10 year grazing permit on Allotment #65084. Over time, the need could arise for subsequent management activities which relate to grazing authorization. These activities could include vegetation treatments (e.g., prescribed fires, herbicide projects), range improvement projects (e.g., fences, water developments), and others. Future management actions related to livestock grazing would be addressed in project-specific NEPA documents as they are proposed. There are no current plans for additional management actions on this allotment.

A. Purpose and Need for the Proposed Action

The purpose of issuing a new grazing permit would be to authorize livestock grazing on public range on allotment #65084 The permit/lease would be needed to specify the types and levels of use authorized, and the terms and conditions of the authorization pursuant to 43 CFR 4130.3, 4130.3-1, and 4130.3-2. The current lease expires on 2/28/2006.

B. Conformance with Land Use Planning

Upon review of the Roswell Resource Management Plan/Environmental Impact Statement (Bureau of Land Management 1997), the proposed action was found to conform with the Record of Decision as required by 43 CFR 1610.5-5.

C. Relationships to Statutes, Regulations, or Other Plans

The proposed action and alternatives are consistent with the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1700 et seq.); the Taylor Grazing Act of 1934 (43 U.S.C. 315 et seq.), as amended; the Clean Water Act (33 U.S.C. 1251 et seq.), as amended; the Endangered Species Act (16 U.S.C. 1535 et seq.) as amended; the Federal Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.); Executive Order 11988, Floodplain Management; and Executive Order 11990, Protection of Wetlands.

2. Proposed Action and Alternatives

A. Proposed Action:

This proposed action is to authorize a 10 year grazing permit on the Birchfield allotment #65084. This permit would authorize 1,683 AUMs at 83% public land for 169 AU's yearlong. Grazing use would be from March 1 to the last day of February of each year and will be in accordance with a Rangeland Agreement on 1/09/1996, which includes 6 AU's of temporary non-renewable use and in accordance with Cooperative Management Plan dated 1/119/1983. Cattle and horses are the class of livestock proposed for authorization.

B. No Permit/Lease Authorization Alternative:

This alternative, if selected, would be to not issue a new grazing lease for Birchfield, allotment #65084. No grazing would be authorized on federal land under this alternative. The No Grazing alternative was considered, but not chosen in the Rangeland Reform Environmental Impact Statement (EIS) Record of Decision (ROD) (p. 28). The elimination of grazing in the Roswell Field Office Area was considered but eliminated by the Roswell RMP/ROD (pp. ROD-2).

C. Modify the Level of Authorized Livestock Numbers Alternative:

This alternative would terminate the 6 AU's/60 AUMs of temporary non-renewable use granted by the 1996 Agreement that the current permit authorizes. The level of permitted use would be for 169 AU's/1683 AUMs at 83 percent Public Land.

3. Affected Environment

A. General Setting

Allotment #65084 is located in Chaves County, about 10 miles southeast of Hagerman, New Mexico in portions of Township 14 & 15 South, Range 27 & 28 East NMPM. This allotment consists of 8,149 acres public, 1,525 private and 144 State. This allotment is in "I" improve category

Normally, the permitted use on Section 3 permit is established by forage allocated by, or under guidance of, an applicable land use plan for livestock grazing in an allotment under a permit or lease and is expressed in AUM's. Vegetation monitoring studies will be continued and subsequent livestock adjustments will be based upon the Resource Management Plan decisions and results of monitoring studies.

A significant portion of the federal surface and private surface with federal minerals have been influenced by oil and gas development to some degree. Numerous oil and gas facilities, abandoned pads, caliche pits, pipelines and roads are located on this allotment.

Following resources or values are not present or would not be affected: Prime/Unique Farmland, Areas of Critical Environmental Concern, Minority/Low Income Populations, Wild and Scenic Rivers, Hazardous/Solid Wastes, Wetlands/Riparian Zones, Floodplains, and Native American Religious Concerns. Cultural inventory surveys would continue to be required for public actions involving surface disturbing activities.

B. Affected Resources

1. Soil

Based on the Southern Chaves County Soil Survey published by Natural Resource Conservation Service (NRCS). A copy of this publication may be reviewed at the BLM Roswell Field office or at the local NRCS office. A more detailed soil description may be accessed from this publication. The general soil mapping for this area shows six major soil associations for this allotment: Berino-Pintura, Tencee-Sotim, Tencee, Holloman-Gypsum land, Sotim & Reeves-Holloman.

(Berino-Pintura) Bf Berino soil makes up 50 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. Runoff class is low. Depth to a restrictive feature is greater than 60 inches. It is well drained. The slowest soil permeability within a depth of 60 inches is moderate. Available water capacity within a depth of 60 inches is moderate, and shrink swell potential is moderate. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 10 percent. In the soil profile, the maximum salinity is very slight, and there are no sodic horizons. This component is in the SANDY, ecological site. It is irrigated land capability subclass 3e. It is nonirrigated land capability subclass 7e. Pintura soil makes up 30 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. Runoff class is low. Depth to a restrictive feature is greater than 60 inches. It is somewhat excessively drained. Slowest soil permeability within a depth of 60 inches is rapid. Available water capacity within a depth of 60 inches is low, and shrink swell potential is low. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 2 percent. In the soil profile, the maximum salinity is moderate, and there are no sodic horizons. This component is in the DEEP SAND, ecological site. It is nonirrigated land capability subclass 7s.

(Tencee-Sotim) TS soil makes up 50 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. Runoff class is medium. Depth to a restrictive feature is 7 to 20 inches to a petrocalcic. It is well drained. The slowest soil permeability within a depth of 60 inches is moderate. Available water capacity within a depth of 60 inches is very low, and shrink swell potential is low. Annual flooding is none, and annual ponding is none. Minimum depth to a water table is greater than 6 feet. Maximum calcium carbonate equivalent within a depth of 40 inches is 45 percent. In the soil profile, there are no saline horizons, and there are no sodic horizons.

This component is in the SHALLOW, ecological site. It is nonirrigated land capability subclass 7e.

Sotim soil makes up 30 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. The runoff class is medium. The depth to a restrictive feature is greater than 60 inches. It is well drained. The slowest soil permeability within a depth of 60 inches is moderately slow. Available water capacity within a depth of 60 inches is high, and shrink swell potential is moderate. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 35 percent. In the soil profile, there are no saline horizons, and there are no sodic horizons. This component is in the SANDY, ecological site. It is nonirrigated land capability subclass 7e.

(Tencee) Te- soil makes up 85 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. The runoff class is medium. The depth to a restrictive feature is 7 to 20 inches to a petrocalcic. It is well drained. The slowest soil permeability within a depth of 60 inches is moderate. Available water capacity within a depth of 60 inches is very low, and shrink swell potential is low. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 80 percent. In the soil profile, there are no saline horizons, and there are no sodic horizons. This component is in the SHALLOW, ecological site. It is nonirrigated land capability subclass 7e.

(Holloman- Gypsum Land) HrC- soil makes up 30 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. The runoff class is medium. The depth to a restrictive feature is 4 to 20 inches to bedrock (paralithic). It is well drained. The slowest soil permeability within a depth of 60 inches is moderate. Available water capacity within a depth of 60 inches is very low, and shrink swell potential is low. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 20 percent. In the soil profile, the maximum salinity is moderate, and the maximum sodicity is slight. This component is in the GYP UPLAND, ecological site. It is nonirrigated land capability subclass 7s.

(Sotim) So- soil makes up 85 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. The runoff class is medium. The depth to a restrictive feature is greater than 60 inches. It is well drained. The slowest soil permeability within a depth of 60 inches is moderately slow. Available water capacity within a depth of 60 inches is high, and shrink swell potential is moderate. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 35 percent. In the soil profile, there are no saline horizons, and there are no sodic horizons. This component is in the SANDY, ecological site. It is nonirrigated land capability subclass 7e.

(Reeves) RL soil make up 40 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. The runoff class is medium. The depth to a restrictive feature is greater than 60 inches. It is well drained. The slowest soil permeability within a depth of 60 inches is moderate. Available water capacity within a depth of 60 inches is low, and shrink swell potential is low. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 25 percent. In the soil profile, the maximum salinity is slight, and there are no sodic horizons. This component is in the LOAMY, ecological site. It is irrigated land capability subclass 3e. It is nonirrigated land capability subclass 7e.

Holloman soil makes up 15 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. The runoff class is medium. The depth to a restrictive feature is 4 to 20 inches to a bedrock (paralithic). It is well drained. The slowest soil permeability within a depth of 60 inches is moderate. Available water capacity within a depth of 60 inches is very low, and shrink swell potential is low. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 25 percent. In the soil profile, the maximum salinity is moderate, and the maximum sodicity is slight. This component is in the GYP UPLAND, ecological site. It is nonirrigated land capability subclass 7s.

2. Vegetation

This allotment lies within mixed desert shrub and grassland vegetative communities as identified in Roswell Resource Management Plan/Environmental Impact Statement (RMP/EIS). Appendix 11 of Draft RMP/EIS describes Desired Plant Community (DPC) concept and identifies components of each community. Primary features in desert shrub communities are topography, mix of shrubs and desert grasses and canopy and cover of vegetation. Vegetative cover by percent composition objectives for desert shrub community are grasses 55-75 %, forbs 10-20%, shrubs & trees 6-15%. Ground cover objectives for this community are: bare ground 10-40%, litter 1-12%, small & large rock 15-35%, grass & forbs 11-28% and shrubs & trees 6-15%.

Primary features in Grassland communities include grasses and forbs comprising the majority of vegetative cover by composition. Vegetative cover by percent composition objectives for the Grassland (GR) community are grasses 30-85 %, forbs 10-15%, shrubs & trees 1-10%. Ground cover objectives for this community are: bare ground 14-60%, litter 8-44%, small & large rock 0-30%, grass & forbs 15-52% and shrubs & trees 3-12%.

Primary ecological (range) sites on this allotment are Shallow Sandy, Shallow, Loamy, Deep Sand & Gyp Upland. Ecological site descriptions are available for review at Roswell BLM office or any Natural Resources Conservation Service office or may be accessed at www.nm.nrcs.usda.gov.

Five permanent monitoring sites were established in 1980 for allotment #65084. Monitoring information has been collected approximately every 5 years for all study areas. Most recent data was collected in 2004. Long-term production figures indicates an average of 887 lbs/ac for all sites. Northeast Pasture with 1,266 lbs/ac and South Pasture with 971lbs/ac are most productive with perennial grass comprising 57% and 50% composition respectively. Southeast with 814 lbs/ac, Saltgrass at 750 lbs/ac and Sandhills at 633 lbs/ac are the next three pastures and are comprised of 48%, 33% and 44% of the total composition respectively for perennial grass. A complete data set for all years and recent datum is available for review as attached, which includes trends, vegetative and ground cover, and condition ratings both for Traditional and Similarity index, etc.

3. Wildlife

At least 33 species of mammals occur on or utilize this allotment. A diversity of small mammals provide an excellent prey base for carnivores such as coyote (Canis latrans), gray fox (Urocyon cinereoargenteus), bobcat (Lynx rufus), badger (Taxidea taxus), hooded skunk (Mephitis macroura) and striped skunk (Mephitis mephitis).

Mammals that provide a prey base include black-tailed jackrabbit (Lepus californicus), desert cottontail (Sylvilagus audoboni), spotted ground squirrel (Spermophilus spilosoma), pocket mice (Perognathus flavus), deer mouse (Peromyscus maniculatus), kangaroo rats (Dipodomys spp.), northern grasshopper mouse (Onychomys leucogaster), harvest mice (Reithrodontomys spp.) and white-throated woodrat (Neotoma albigula).

This allotment provides habitat for a sustainable population of mule deer (Odocoileus hemionus) and pronghorn (Antilocapra americana).

Other game species occurring within this area include mourning dove (Zenaida macroura), bobwhite (Colinus virginianus) and scaled quail (Callipepla squamata). Raptors that utilize this area and frequently associated with vegetation types on this allotment include Swainson's hawk (Búteo swáinsoni), red-tailed hawk (Buteo jamacensis), ferruginous hawk (Buteo regalis), American kestrel (Fálco sparvérius), and rough-legged hawk (Buteo lagopus).

Numerous passerine birds utilize the grassland areas. Those most common include western meadowlark (*Sturnella neglecta*), mockingbird (*Mimus polyglottos*), horned lark (*Eremophila alpestris*), killdeer (*Charadrius vociferus*), loggerhead shrike (*Lanius ludovicianus*), and vesper sparrow (*Pooecetes gramineus*).

This warm prairie environment supports a large number of reptile species. More common reptiles include short-horned lizard (*Phrynosoma douglasii*), lesser earless lizard (*Holbrookia maculata*), eastern fence lizard (*Sceloporus undulatus*), coachwhip (*Masticophis flagellum*), bullsnake (*Pituophis melanoleucus sayi*), prairie rattlesnake (*Crotalus v. viridis*), and western rattlesnake (*Crotalus viridis*).

4. Threatened/Endangered Species

There are no known Federal threatened and endangered species or critical habitat within this allotment.

5. Livestock Management

Base waters on this allotment are located on private land. There are five pastures in which livestock are rotated. This allotment is grazed by cattle as a cow/calf operation. In general the stocking levels on this allotment have been well below the permitted use level (175 AU's) for the last few years.

6. Visual Resources

The allotment is located in a Class IV Visual Management Area. The Class IV rating means that contrasts may attract attention and be a dominant feature in the landscape in terms of scale. However, these changes should repeat landscape basic elements.

7. Water Quality Drinking/Ground

No perennial surface water is found on public land on this allotment. Fresh water sources are available at shallow depths in the Quaternary Shallow Alluvium Aquifer.

8. Air Quality

This allotment is in a Class II area for Prevention of Significant Deterioration of air quality as defined in the Federal Clean Air Act, which allows a moderate amount of air quality degradation. Air quality is generally good. Winds are typically southeasterly during summer, and becoming southwesterly in winter and early spring. Winds average 10 miles per hour in fall and 16 miles per hour in spring, with peak velocities reaching 50 miles per hour.

9. Recreation

Recreational opportunities for this grazing allotment are not limited because the public has legal/physical access to public land. Parcels of public land within this allotment are generally contiguous with limited private land parcels.

Off Highway Vehicle designation for public land within this allotment is classified as "Limited" to existing roads and trails.

10. Caves and Karst

A complete significant cave or karst inventory has not been completed for public land located in this grazing allotment. Presently, no known significant caves or karst features have been identified within this allotment. If at a later date, a significant cave or karst feature is located on public land within this allotment, that cave or feature may be fenced to exclude livestock grazing and Off Highway Vehicle Use. A separate Environmental analysis would be prepared to construct this exclosure fence.

This allotment is located within a designated area of Medium Karst or Cave Potential

11. Oil & Gas/ Rights of Ways

At present oil and gas/rights of way activities are occurring on this allotment. Due to the increased exploratory activities within this area, there is potential for new development. There are numerous oil and gas pads and associated infrastructure through out the allotment and in the adjacent area.

12. Noxious/Invasive Weeds

A noxious weed is defined as a plant that causes disease or has other adverse effects on human environment and is, therefore, detrimental to public health and to agriculture and commerce of the United States. Generally, noxious weeds are aggressive, difficult to manage, parasitic, are carriers or hosts of harmful insects or disease, and are either native, new to, or not common in the United States. In most cases, however, noxious weeds are non-native species.

This list currently includes the following weeds: 1) African rue (*Peganum harmala*), 2) black henbane (*Hyoscyamus niger*), 3) bull thistle (*Cirsium vulgare*), 4) camelthorn (*Alhagi pseudalhagi*), 5) Canada thistle (*Cirsium arvense*), 6) dalmatian toadflax (*Linaria genistifolia ssp. Dalmatica*), 7) goldenrod, (*Solidago Canadensis*) 8) leafy spurge (*Euphorbia esula*), 9) Malta starthistle (*Centaurea melitensis*), 10) musk thistle (*Carduus nutans*),

- 11) poison hemlock (Conium maculatum), 12) purple starthistle (Centaurea calcitrapa),
- 13) Russian knapweed (Centaurea repens), 14) Scotch thistle (Onopordum acanthium),
- 15) spotted knapweed (Centaurea maculosa), 16) teasel (Dipsacus fullonum),
- 17) yellow starthistle (Centaurea solstitialis), 18) yellow toadflax (Linaria vulgaris),
- 19) Russian olive (Elaeagnus angustifolia), 20) Saltcedar (Tamarix chinensis),
- 21) Siberian elm (Ulmus pumila).

Of those noxious weeds listed, those ones with known populations in the Roswell District are African rue, non-native thistles (*Cirsium* spp.) such as bull thistle and Canada thistle, leafy spurge, goldenrod, Malta starthistle, Russian knapweed, and Scotch thistle. Also "problem weeds" of local concern are cocklebur (*Xanthium* spp.), buffalobur (*Curcurbita foetidissima*) and spiny cocklebur (*Xanthium spinosum*). "Problem weeds" are those weeds which may be native to those area but whose populations are out of balance with other local flora.

Infestations of noxious weeds can have a disastrous impact on biodiversity and natural ecosystems. Noxious weeds affect native plant species by out-competing native vegetation for light, water and soil nutrients. Noxious weeds cause estimated losses to producers \$2 to \$3 billion annually. These losses are attributed to: (1) Decreased quality of agricultural products due to high levels of competition from noxious weeds; (2) decreased quantity of agricultural products due to noxious weed infestations; and (3) costs to control and/or prevent the noxious weeds.

Further, noxious weeds can negatively affect livestock and dairy producers by making forage either unpalatable or toxic to livestock, thus decreasing livestock productivity and potentially increasing producers' feed and animal health care costs. Increased costs to operators are eventually borne by consumers.

Noxious weeds also affect recreational uses, and reduce realty values of both directly influenced and adjacent properties.

Recent federal legislation has been enacted requiring state and county agencies to implement noxious weed control programs. Monies would be made available for these activities from the federal government, generated from federal tax base. Therefore, all citizens and taxpayers of the United States are directly affected when noxious weed control prevention is not exercised.

IV. Environmental Impacts

A. Impacts of the Proposed Action

1. Soil

Grazing activities will continue to have some impact to soil. These impacts may include: removal of standing vegetation and litter; soil compaction along livestock trails or compaction may occur if livestock are concentrated during prolonged periods when it is wet. These effects can lead to reduced infiltration rates and increased runoff. Reduced vegetative cover and increased runoff can result in higher erosion rates and soil losses, making it more difficult to produce forage and to protect soil from further erosion. These adverse effects can be greatly reduced by maintaining adequate vegetative cover on the soil.

Proper utilization levels and grazing distribution patterns are expected to retain sufficient vegetative cover on this allotment as a whole which would maintain soil stability. Soil compaction and excessive vegetative use would occur at small, localized areas such as drinking locations, along trails and at bedding areas. Positive affects from this proposed action include expediting nutrient cycling processes and soil crust chipping by hoof action stimulating seedling growth and water infiltration.

2. Vegetation

The continuance of permitted use at current use levels authorized by the expiring permit is not anticipated to have any adverse impact to current vegetative conditions. Vegetation will continue to be grazed and trampled by domestic livestock as well as other herbivores such as pronghorn, mule deer, lagomorphs, rodents and insects. Ecological condition and trend is expected to remain stable or improve over long-term with the proposed action.

3. Wildlife

Under the proposed action, wildlife will continue to compete with domestic livestock for space, forage and browse. With proper livestock management and carrying capacities, there will be adequate cover and forage for wildlife species; resulting in sustainable wildlife populations for those species that occupy or utilize the area. Maintenance and availability of existing waterings will continue to prove a dependable water source for wildlife, as well as livestock.

4. Threatened/Endangered Species

Livestock grazing resulting from issuing a grazing permit may affect, but not likely to adversely affect bald eagles (*Haliaeetus leucocephalus*). It is expected that habitat and range condition would be maintained or improved by authorizing grazing conducive with multiple resource vegetative production goals. Habitat for wintering bald eagles would not be negatively impacted by livestock grazing. There would be no impact to peregrine falcons since important riparian nesting sites are not found on this allotment

5. Livestock Management

Under the proposed action there would be no impacts to the current livestock management. The allotment would continue to be grazed in the same manner as it is currently. It would also be anticipated that this area would continue to receive rest when implementing a rest rotation system.

6. Visual Resources

The continued grazing of livestock would not affect the form or color of the landscape, or the primary aspect of the vegetation within the allotment. The VRM Class within this allotment is Class IV.

7. Water Quality/Drinking Ground

Direct impacts to surface water quality would be minor, short-term impacts during stormflow. Indirect impacts to water-quality related resources, such as fisheries, would not occur. This proposed action would not have a significant effect on ground water. Livestock would be dispersed over the allotment, and soil would filter potential contaminants.

8. Air Quality

Dust levels under this proposed action would be slightly higher than under the no grazing alternative due to allotment management activities. Levels would be within limits allowed in a Class II area for Prevention of Significant Deterioration of air quality.

9. Recreation

Grazing should have little or no affect on the recreational opportunities in this allotment. Recreation activities that could occur within this grazing allotment are not limited.

10. Significant Caves/Karst

No known significant caves or karst features are known to exist on the public land located within this allotment. Grazing would not affect the karst resources. Cave Karst occurrence rating within this allotment is medium.

11. Oil and Gas/Rights of Way

Oil and gas/rights of way activities are expected to continue within the allotment area. It is anticipated that no adverse impacts to livestock grazing would occur. Current policies in place by state and federal agencies emphasize the reduction and reclamation of disturbed areas associated with these activities.

12. Noxious and Non-native Invasive Species

There are no known noxious weed populations found within this allotment.

B. Impacts of the No Livestock Grazing Alternative.

- 1. **Soil:** Soil compaction would be reduced on this allotment around old trails and bedding grounds. There would be a small reduction in soil loss on this allotment.
- 2. <u>Vegetation:</u> It is expected that number of plant species found within this allotment will remain; however, there would be small changes in relative percentages of these species. Vegetation will continue to be utilized by wildlife. There would be an increase in amounts of standing vegetation.
- 3. <u>Wildlife:</u> Conflicts between wildlife and livestock for habitat and dietary needs would not exist under this alternative.
- 4. **T&E Species**: There would be no impacts to threatened or endangered species or habitat.
- 5. <u>Livestock Management:</u> Forage from public land would be unavailable for use by the permittee. This would have a significant adverse economic impact to the livestock

operation. If the No Grazing alternative is selected, the livestock owner would be responsible for ensuring that livestock do not enter Public Land [43 CFR 4140.1(b)(1)]. Intermingled land status on this allotment makes it economically unfeasible to fence out public land and use only private. Remaining private land could not support current authorized livestock numbers and lower numbers would not provide a level of potential income operators are accustomed to.

- 6. **Visual Resources**: There would be no change in visual resources.
- 7. **Water Quality:** There could be a slight improvement in water quality due to minor reductions in sediment loading during stormflow.
- 8. <u>Air Quality:</u> There would be a slightly less dust under this alternative versus the proposed alternative, but this would be negligible when considering all sources of dust.
- 9. **Recreation:** Impacts would be very minor under this alternative. No positive impacts from livestock watering locations would occur.
- 10. <u>Caves/Karst:</u> Impacts would be the same as the proposed action if no significant caves are found.
- 11. Oil & Gas/Rights of Ways Impacts would be the same as the proposed action.
- 12. **Non-native and Invasive Species**: There would be no change in existing non-native/invasive species populations.

C. Modify the Level of Authorized Livestock Numbers Alternative:

The impacts to all resources under this alternative are the same as those discussed under the proposed action alternative. Since 1996 (year of Agreement) authorized livestock use has averaged approximately 132 AUs/1314 AUMs; this is approximately 78 percent of the permit. The continuance of the agreement authorizing the temporary non-renewable use for 6 AUs/60 AUMs is not feasible. Based on the above there are no economic impacts to the permittee or to the tax base of Chaves County.

V. Public Land Health

Rangeland Health Assessments for public land also were completed for this allotment in late 2006. Based on these assessments and monitoring data a Determination will be made that public land within this livestock grazing allotment is in conformance with New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management. A copy of this assessment when completed can be accessed at www.nm.blm.gov/rfo/index.htm.

VI. Cumulative Impacts

All allotments that have permits/leases with BLM will undergo scoping and analysis in conformance with NEPA. Allotment #65084 is surrounded by others that will undergo this process. If this proposed action is selected, there would be no change in cumulative impacts since it does not vary from current situations.

If the no livestock grazing alternative is selected, there would be little change in cumulative impact as long as surrounding allotments continue to be stocked at their current level. If permitted numbers are reduced on surrounding ranches as well, economics of surrounding communities and/or minority/low income populations would be negatively impacted.

The No Grazing alternative was considered, but not chosen in Rangeland Reform Environmental Impact Statement (EIS) Record of Decision (ROD) (p. 28). Elimination of grazing in the Roswell Field Office Area was also considered but eliminated by the Roswell RMP/ROD (pp. ROD-2).

VII. Residual Impacts

Vegetative monitoring studies have shown that grazing, at current permitted numbers of animals, is sustainable. If mitigation measures are enacted, then there would be no residual impacts to this proposed action.

VIII. Socio-Economic Impacts

A description of economic, social and cultural conditions by geographic region within New Mexico can be found in 2000 New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management Final EIS. Impacts of authorizing grazing for this allotment under the Proposed Alternative on economic, social and cultural conditions of southeast New Mexico would be positive. On a smaller scale, impacts of authorizing grazing for this allotment under the Proposed Action on economic, social and cultural conditions of Chaves County would also be positive.

IX. Mitigating Measures And/Or Permit/Lease Conditions

Vegetation monitoring studies will continue to be conducted and the permitted numbers of livestock will be adjusted if necessary. If new information surfaces that livestock grazing is negatively impacting other resources, action will be taken at that time to mitigate those impacts.

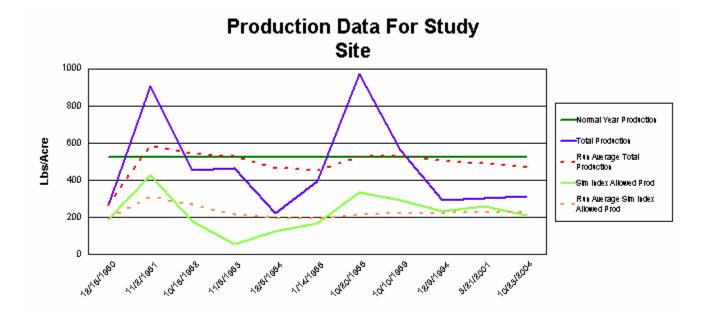
X. BLM TEAM MEMBERS

John Spain - Rangeland Management Specialist Helen Miller - Rangeland Management Specialist Joseph Navarro - Rangeland Management Specialist Ernest Jaquez - Wildlife Management Biologist Paul Happel – Natural Resource Specialist
Michael McGee - Watershed Specialist
Pat Flanary – Archaeologist
Jerry Dutchover- Geologist
Howard Parman – Environmental Planner
Tim Kreager – Assistant Field Manager, Resources

(Data Extracted From VMAP System)

VEGID: 423 Date Printed: 4/2/2006 **Ecosite ID Ecosite Name Site Name** Allot No. Allotment **BIRCHFIELD** 65084 042CY025NM SHALLOW SD-3 65084-SANDHILLS-D167 T. 0140S Location: **R.** 0270E **Sec.** 33 QtrQt **SESW** UTM-N 3657644.750 **CHAVES** NM UTM-E 570818.6875 County, Soil Map Unit Soil Sur No **Soil Tax Soil Association** TS **TENCEE TENCEE-SOTIM** NM666

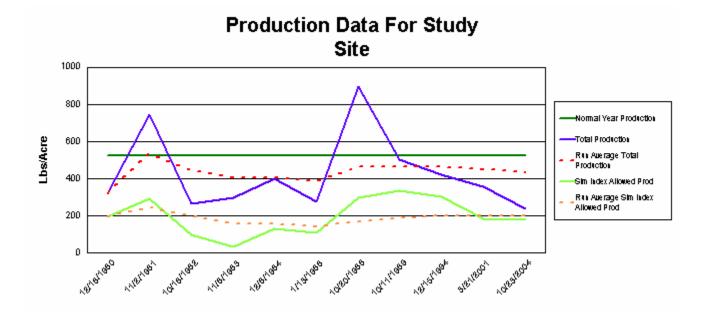
Date	Range Cond.	Similarity Index	Normal Year Production	Total Production	Running Average Production	Sim Index Allowed Production	Running Average Sim Index Allowed Production
12/16/1980	56.00	36.38	525	264.00	264.00	191.00	191.00
11/02/1981	69.17	81.52	525	911.00	587.50	428.00	309.50
10/18/1982	38.02	33.90	525	453.00	542.67	178.00	265.67
11/08/1983	10.93	10.10	525	466.00	523.50	53.00	212.50
12/06/1984	47.54	24.38	525	225.00	463.80	128.00	195.60
01/14/1986	37.72	32.00	525	396.00	452.50	168.00	191.00
10/20/1988	50.44	64.19	525	973.00	526.86	337.00	211.86
10/10/1989	54.00	56.00	525	566.00	531.75	294.00	222.13
12/09/1994	52.00	44.19	525	294.00	505.33	232.00	223.22
03/21/2001	53.20	49.52	525	306.00	485.40	260.00	226.90
10/23/2004	55.75	40.36	525	317.37	470.12	211.87	225.53



(Data Extracted From VMAP System)

VEGID: 424 Date Printed: 4/2/2006 **Ecosite ID Ecosite Name Site Name** Allot No. Allotment 65084 **BIRCHFIELD** 042CY025NM SHALLOW SD-3 65084-SALTGRASS-D168 Location: Т. 0150S **R.** 0270E **Sec.** 04 QtrQt **SENW** UTM-N 3656649.000 **CHAVES** NM UTM-E 570847.000 County, Soil Sur No Soil Map Unit **Soil Association Soil Tax TENCEE-SOTIM** NM666 TS **TENCEE**

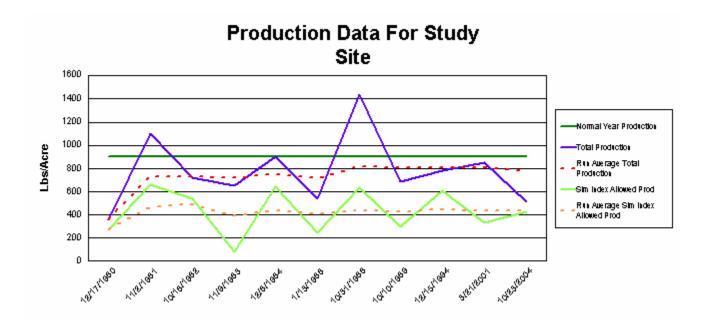
Date	Range Cond.	Similarity Index	Normal Year Production	Total Production	Running Average Production	Sim Index Allowed Production	Running Average Sim Index Allowed Production
12/16/1980	47.00	37.71	525	322.00	322.00	198.00	198.00
11/02/1981	46.45	56.38	525	749.00	535.50	296.00	247.00
10/18/1982	23.03	18.67	525	266.00	445.67	98.00	197.33
11/08/1983	8.32	6.29	525	301.00	409.50	33.00	156.25
12/06/1984	29.23	24.76	525	401.00	407.80	130.00	151.00
01/13/1986	23.32	20.95	525	277.00	386.00	110.00	144.17
10/20/1988	47.19	56.95	525	901.00	459.57	299.00	166.29
10/11/1989	65.00	64.00	525	504.00	465.13	336.00	187.50
12/15/1994	59.00	57.52	525	425.00	460.67	302.00	200.22
03/21/2001	44.55	34.86	525	360.00	450.60	183.00	198.50
10/23/2004	48.26	34.41	525	240.10	431.46	180.66	196.88



(Data Extracted From VMAP System)

VEGID: 425 Date Printed: 4/2/2006 **Ecosite ID Ecosite Name Site Name** Allot No. Allotment 65084 **BIRCHFIELD** 042CY007NM LOAMY SD-3 65084-NORTHEAST-D169 Location: Т. 0140S **R.** 0270E **Sec.** 35 QtrQt **NWSW** UTM-N 3657781.00000 **CHAVES** NM UTM-E 573422.87500 County, Soil Sur No Soil Map Unit **Soil Association Soil Tax** NM666 HrC **HOLLOMAN** HOLLOMAN-GYPSUM LAND

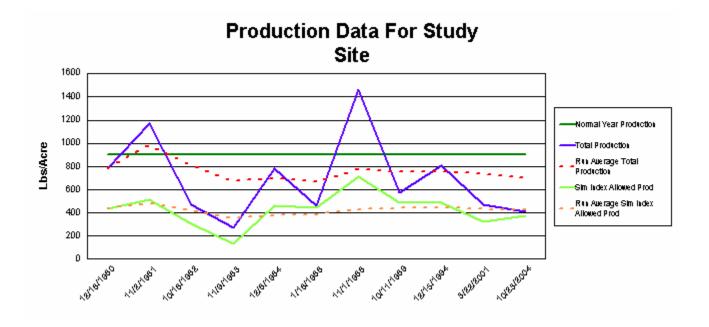
Date	Range Cond.	Similarity Index	Normal Year Production	Total Production	Running Average Production	Sim Index Allowed Production	Running Average Sim Index Allowed Production
12/17/1980	64.00	30.00	900	357.00	357.00	270.00	270.00
11/02/1981	70.38	73.33	900	1,100.00	728.50	660.00	465.00
10/18/1982	71.54	59.56	900	719.00	725.33	536.00	488.67
11/09/1983	10.63	8.56	900	655.00	707.75	77.00	385.75
12/06/1984	70.94	71.00	900	902.00	746.60	639.00	436.40
01/13/1986	38.37	27.00	900	537.00	711.67	243.00	404.17
10/31/1988	61.40	70.56	900	1,435.00	815.00	635.00	437.14
10/10/1989	43.00	33.22	900	689.00	799.25	299.00	419.88
12/15/1994	71.00	67.11	900	785.00	797.67	604.00	440.33
03/21/2001	38.20	36.33	900	852.00	803.10	327.00	429.00
10/23/2004	50.45	46.94	900	509.09	776.37	422.50	428.41



(Data Extracted From VMAP System)

VEGID: 426 Date Printed: 4/2/2006 **Ecosite ID Ecosite Name Site Name** Allot No. Allotment 65084 **BIRCHFIELD** 042CY007NM LOAMY SD-3 65084-SOUTH-D170 Location: Т. 0150S **R.** 0270E **Sec.** 14 QtrQt **SWNW** UTM-N 3653414.50000 **CHAVES** NM UTM-E 573405.68750 County, Soil Sur No Soil Map Unit **Soil Association Soil Tax** NM666 HrC **HOLLOMAN** HOLLOMAN-GYPSUM LAND

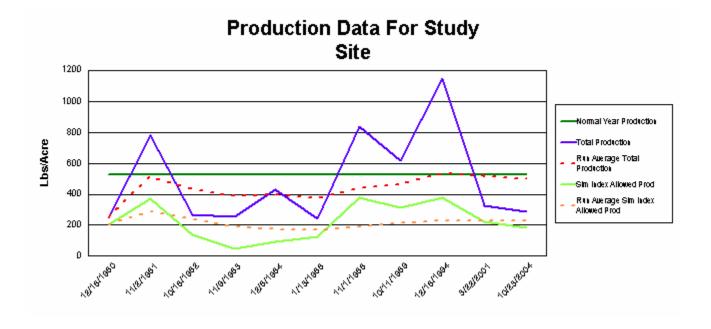
Date	Range Cond.	Similarity Index	Normal Year Production	Total Production	Running Average Production	Sim Index Allowed Production	Running Average Sim Index Allowed Production
12/18/1980	48.00	48.67	900	785.00	785.00	438.00	438.00
11/02/1981	54.58	57.11	900	1,166.00	975.50	514.00	476.00
10/18/1982	51.95	33.67	900	471.00	807.33	303.00	418.33
11/09/1983	41.58	14.44	900	267.00	672.25	130.00	346.25
12/06/1984	52.97	51.67	900	784.00	694.60	465.00	370.00
01/16/1986	55.15	49.22	900	461.00	655.67	443.00	382.17
11/01/1988	71.12	79.11	900	1,467.00	771.57	712.00	429.29
10/11/1989	57.00	53.67	900	573.00	746.75	483.00	436.00
12/15/1994	53.00	54.11	900	806.00	753.33	487.00	441.67
03/22/2001	56.38	35.78	900	471.00	725.10	322.00	429.70
10/23/2004	48.38	41.85	900	406.31	696.12	376.67	424.88



Production (lbs/ac) Data Trends (Data Extracted From VMAP System)

VEGID: 427 Date Printed: 4/2/2006 **Ecosite ID Ecosite Name Site Name** Allot No. Allotment 65084 **BIRCHFIELD** 042CY025NM SHALLOW SD-3 65084-SOUTHEAST-D171 Location: Т. 0150S **R.** 0280E **Sec.** 19 QtrQt **NENW** UTM-N 3652312.50000 **CHAVES** NM UTM-E 577399.81250 County, Soil Sur No Soil Map Unit **Soil Association Soil Tax** NM666 Te **TENCEE TENCEE**

Date	Range Cond.	Similarity Index	Normal Year Production	Total Production	Running Average Production	Sim Index Allowed Production	Running Average Sim Index Allowed Production
12/18/1980	61.00	38.48	525	245.00	245.00	202.00	202.00
11/02/1981	64.69	70.67	525	778.00	511.50	371.00	286.50
10/18/1982	36.20	26.29	525	268.00	430.33	138.00	237.00
11/09/1983	14.32	8.57	525	256.00	386.75	45.00	189.00
12/06/1984	20.04	17.52	525	427.00	394.80	92.00	169.60
01/13/1986	35.49	23.24	525	240.00	369.00	122.00	161.67
11/01/1988	62.66	72.00	525	839.00	436.14	378.00	192.57
10/11/1989	57.00	59.05	525	621.00	459.25	310.00	207.25
12/16/1994	59.00	72.38	525	1,147.00	535.67	380.00	226.44
03/22/2001	46.25	42.48	525	324.00	514.50	223.00	226.10
10/23/2004	50.35	34.47	525	284.03	493.55	180.96	222.00



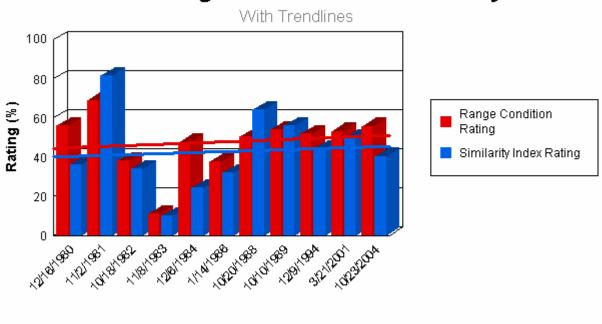
VEGID: 423

65084 BIRCHFIELD 65084-SANDHILLS-D167

SHALLOW SD-3 042CY025NM

Date	Range Cond.	Similarity Index	Total Production	Normal Year Production
12/16/1980	56.00	36.38	264.00	525
11/02/1981	69.17	81.52	911.00	525
10/18/1982	38.02	33.90	453.00	525
11/08/1983	10.93	10.10	466.00	525
12/06/1984	47.54	24.38	225.00	525
01/14/1986	37.72	32.00	396.00	525
10/20/1988	50.44	64.19	973.00	525
10/10/1989	54.00	56.00	566.00	525
12/09/1994	52.00	44.19	294.00	525
03/21/2001	53.20	49.52	306.00	525
10/23/2004	55.75	40.36	317.37	525

Traditional Range Condition vs Similarity Index



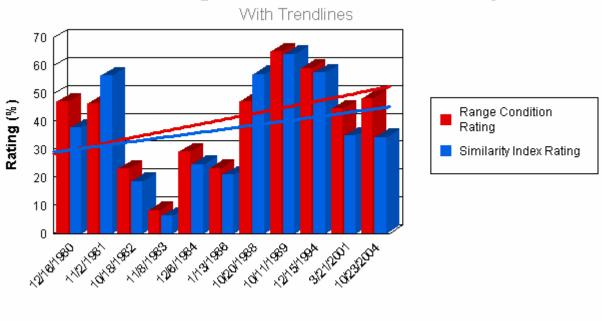
VEGID: 424

65084 BIRCHFIELD 65084-SALTGRASS-D168

SHALLOW SD-3 042CY025NM

Date	Range Cond.	Similarity Index	Total Production	Normal Year Production
12/16/1980	47.00	37.71	322.00	525
11/02/1981	46.45	56.38	749.00	525
10/18/1982	23.03	18.67	266.00	525
11/08/1983	8.32	6.29	301.00	525
12/06/1984	29.23	24.76	401.00	525
01/13/1986	23.32	20.95	277.00	525
10/20/1988	47.19	56.95	901.00	525
10/11/1989	65.00	64.00	504.00	525
12/15/1994	59.00	57.52	425.00	525
03/21/2001	44.55	34.86	360.00	525
10/23/2004	48.26	34.41	240.10	525

Traditional Range Condition vs Similarity Index



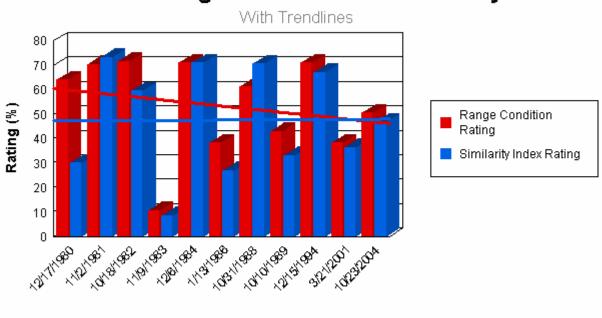
VEGID: 425

65084 BIRCHFIELD 65084-NORTHEAST-D169

LOAMY SD-3 042CY007NM

Date	Range Cond.	Similarity Index	Total Production	Normal Year Production
12/17/1980	64.00	30.00	357.00	900
11/02/1981	70.38	73.33	1,100.00	900
10/18/1982	71.54	59.56	719.00	900
11/09/1983	10.63	8.56	655.00	900
12/06/1984	70.94	71.00	902.00	900
01/13/1986	38.37	27.00	537.00	900
10/31/1988	61.40	70.56	1,435.00	900
10/10/1989	43.00	33.22	689.00	900
12/15/1994	71.00	67.11	785.00	900
03/21/2001	38.20	36.33	852.00	900
10/23/2004	50.45	46.94	509.09	900

Traditional Range Condition vs Similarity Index



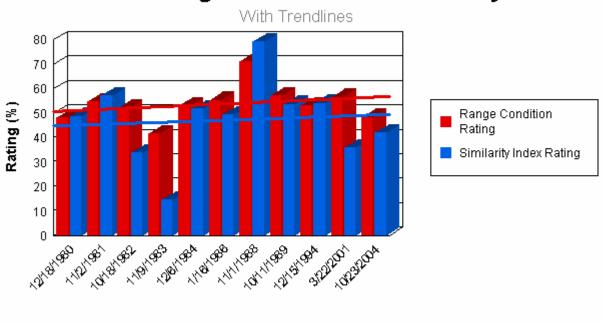
VEGID: 426

65084 BIRCHFIELD 65084-SOUTH-D170

LOAMY SD-3 042CY007NM

Date	Range Cond.	Similarity Index	Total Production	Normal Year Production
12/18/1980	48.00	48.67	785.00	900
11/02/1981	54.58	57.11	1,166.00	900
10/18/1982	51.95	33.67	471.00	900
11/09/1983	41.58	14.44	267.00	900
12/06/1984	52.97	51.67	784.00	900
01/16/1986	55.15	49.22	461.00	900
11/01/1988	71.12	79.11	1,467.00	900
10/11/1989	57.00	53.67	573.00	900
12/15/1994	53.00	54.11	806.00	900
03/22/2001	56.38	35.78	471.00	900
10/23/2004	48.38	41.85	406.31	900

Traditional Range Condition vs Similarity Index



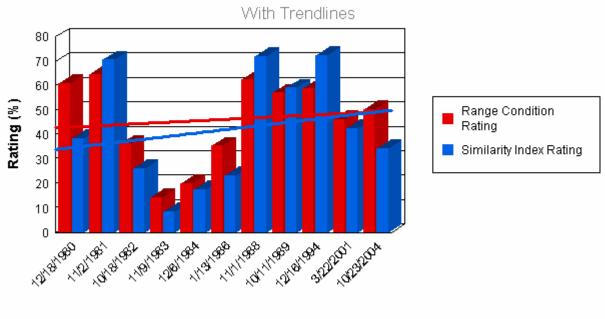
VEGID: 427

65084 BIRCHFIELD 65084-SOUTHEAST-D171

SHALLOW SD-3 042CY025NM

Date	Range Cond.	Similarity Index	Total Production	Normal Year Production
12/18/1980	61.00	38.48	245.00	525
11/02/1981	64.69	70.67	778.00	525
10/18/1982	36.20	26.29	268.00	525
11/09/1983	14.32	8.57	256.00	525
12/06/1984	20.04	17.52	427.00	525
01/13/1986	35.49	23.24	240.00	525
11/01/1988	62.66	72.00	839.00	525
10/11/1989	57.00	59.05	621.00	525
12/16/1994	59.00	72.38	1,147.00	525
03/22/2001	46.25	42.48	324.00	525
10/23/2004	50.35	34.47	284.03	525

Traditional Range Condition vs Similarity Index



Vegid#:

65084 BIRCHFIELD SANDHILLS

65084-SANDHILLS-D167 Ecological Site No.: 042CY025NM

Location: Township: 0140S Range 0270E Section 33 QtrQtr: NWSE

	Bare		Cmall	Large					Running Average							
Year	Ground	Litter	Small Rock	Rock	Forbs	Grass S	hrubs	Trees	Bground	Litter	Srock	Lrock	Forb	Grass	Shrubs	Trees
1981	56.00	22.00	4.00		1.00	13.00	3.00		56.00	22.00	4.00		1.00	13.00	3.00	
1985	78.00	12.00				2.00	8.00		67.00	17.00	4.00		1.00	7.50	5.50	
1990	7.00	22.00	47.00		0	16.00	8.00		47.00	18.67	25.50		0.50	10.33	6.33	
1995	38.00	19.00	0.00		1.00	37.00	5.00		44.75	18.75	17.00		0.67	17.00	6.00	
2001	18.00	17.00	0.00		1.00	59.00	6.00		39.40	18.40	12.75		0.75	25.40	6.00	
2005	45.00	11.00	7.00		9.00	10.00	18.00		40.33	17.17	11.60		2.40	22.83	8.00	

Running Average Ground Cover Trends With Trendlines % Trees Run Avg 10 % Shrubs Run Avg % Forbs Run Avg Per Centage % Grass Run Avg % Large Rock Run Avg % Small Rock Run Avg % Litter Run Avg % Bare Ground Run Year

NM06000 Date Printed: 4/2/2006

65084 BIRCHFIELD SALTGRASS Vegid#:

65084-SALTGRASS-D168 Ecological Site No.: 042CY025NM

Location: Township: 0150S Range 0270E Section 04 QtrQtr: NESW

V	Bare Ground	1:44	Small	Large Rock	Forbs	C*****	2 h w .h a	T	Running Average Bground	Running Average Litter	Running Average Srock	Running Average Lrock	Running Average Forb	Running Average Grass	Running Average Shrubs	Running Average Trees
Year		Litter	Rock		FOIDS	Grass S	Surubs	Trees	Бугоини	Littei	SIUCK	LIUCK	FUID	Glass	Siliubs	11662
1981	52.00	27.00	3.00		3.00	11.00	4.00		52.00	27.00	3.00		3.00	11.00	4.00	
1985	58.00	21.00	7.00			3.00	11.00		55.00	24.00	5.00		3.00	7.00	7.50	
1990	69.00	6.00				22.00	3.00		59.67	18.00	5.00		3.00	12.00	6.00	
1995	54.00	14.00	0.00		0	22.00	9.00		58.25	17.00	3.33		1.50	14.50	6.75	
2001	35.00	22.00	0.00		1.00	36.00	5.00	0.00	53.60	18.00	2.50		1.33	18.80	6.40	0.00
2005	52.00	8.00	6.00	1.00	4.00	5.00	23.00	0.00	53.33	16.33	3.20	1.00	2.00	16.50	9.17	0.00

Running Average Ground Cover Trends With Trendlines % Trees Run Avg % Shrubs Run Avg % Forbs Run Avg Per Centage % Grass Run Avg % Large Rock Run Avg % Small Rock Run Avg % Litter Run Avg % Bare Ground Run Year

NM06000 Date Printed: 4/2/2006

425

65084 BIRCHFIELD NORTHEAST Vegid#:

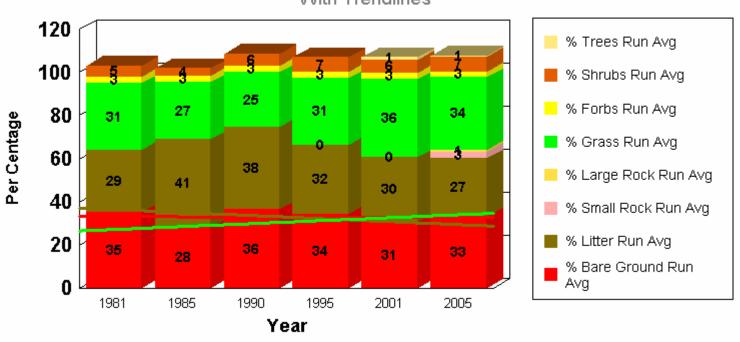
65084-NORTHEAST-D169 Ecological Site No.: 042CY007NM

Location: Township: 0140S Range 0270E Section 35 QtrQtr: NWSW

Year	Bare Ground	Litter	Small Rock	Large Rock	Forbs	Grass S	Shrubs	Trees	Running Average Bground	Running Average Litter	Running Average Srock	Running Average Lrock	Running Average Forb	Running Average Grass	Running Average Shrubs	Running Average Trees
			NOCK													
1981	35.00	29.00			3.00	31.00	5.00		35.00	29.00			3.00	31.00	5.00	
1985	21.00	53.00				22.00	2.00		28.00	41.00			3.00	26.50	3.50	
1990	53.00	33.00				23.00	10.00		36.33	38.33			3.00	25.33	5.67	
1995	28.00	14.00	0.00			47.00	10.00		34.25	32.25	0.00		3.00	30.75	6.75	
2001	16.00	21.00				58.00	4.00	1.00	30.60	30.00	0.00		3.00	36.20	6.20	1.00
2005	46.00	12.00	6.00	1.00	2.00	21.00	11.00	0.00	33.17	27.00	3.00	1.00	2.50	33.67	7.00	0.50

Running Average Ground Cover Trends





NM06000 Date Printed: 4/2/2006

426

Vegid#: 65084 BIRCHFIELD SOUTH

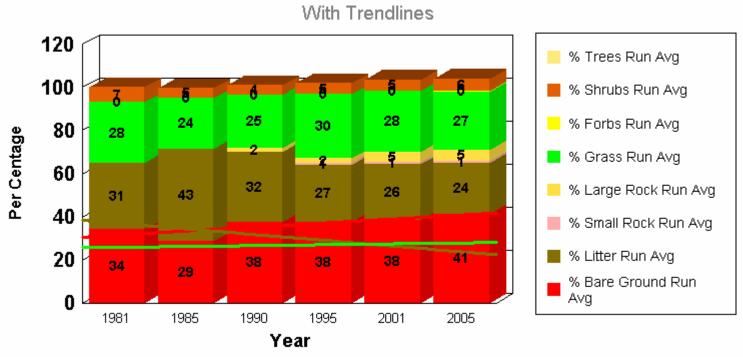
65084-SOUTH-D170 Ecological Site No.: 042CY007NM

QtrQtr: SWNW Township: 0150S 0270E Section Location: Range 14

	Bare			Large				Running Average							
Year	Ground	Litter	Small Rock	Rock	Forbs	Grass S	Shrubs Tree		Litter	Srock	Lrock	Forb	Grass	Shrubs	Trees
1981	34.00	31.00			0	28.00	7.00	34.00	31.00			0	28.00	7.00	
1985	23.00	55.00				19.00	2.00	28.50	43.00			0	23.50	4.50	
1990	56.00	11.00		2.00		27.00	4.00	37.67	32.33		2.00	0	24.67	4.33	
1995	37.00	9.00	1.00		0	45.00	8.00	37.50	26.50	1.00	2.00	0	29.75	5.25	
2001	42.00	23.00	1.00	8.00		22.00	5.00	38.40	25.80	1.00	5.00	0	28.20	5.20	
2005	55.00	14.00			1.00	21.00	8.00	41.17	23.83	1.00	5.00	0.33	27.00	5.67	
2005	55.00	14.00			1.00	21.00	8.00	41.17	23.83	1.00	5.00	0.33	27.00	5.67	

Running Average Ground Cover Trends





NM06000 Date Printed: 4/2/2006

Vegid#:

65084 BIRCHFIELD SOUTHEAST

65084-SOUTHEAST-D171 Ecological Site No.: 042CY025NM

Location: Township: 0150S Range 0280E Section 19 QtrQtr: NENW

Year	Bare Ground	Litter	Small Rock	Large Rock	Forbs	Grass S	Shrubs	Trees	Running Average Bground	Running Average Litter	Running Average Srock	Running Average Lrock	Running Average Forb	Running Average Grass	Running Average Shrubs	Running Average Trees
1981	65.00	16.00	9.00		1.00	4.00	3.00	0.00	65.00	16.00	9.00		1.00	4.00	3.00	0.00
1985	80.00	4.00	10.00	2.00		5.00	1.00)	72.50	10.00	9.50	2.00	1.00	4.50	2.00	0.00
1990	7.00	30.00	37.00		0	20.00	6.00)	50.67	16.67	18.67	2.00	0.50	9.67	3.33	0.00
1995	73.00	8.00				10.00	8.00)	56.25	14.50	18.67	2.00	0.50	9.75	4.50	0.00
2001	13.00	44.00	12.00	13.00		14.00	3.00)	47.60	20.40	17.00	7.50	0.50	10.60	4.20	0.00
2005	45.00	11.00	13.00	1.00	8.00	9.00	12.00	1	47.17	18.83	16.20	5.33	3.00	10.33	5.50	0.00

Running Average Ground Cover Trends With Trendlines % Trees Run Avg % Shrubs Run Avg 2 % Forbs Run Avg Per Centage % Grass Run Avg 47. % Large Rock Run Avg % Small Rock Run Avg % Litter Run Avg % Bare Ground Run Year

Allotment Weighted Average Range Condition and Similarity Index

NM06000 Date Printed: 4/2/2006

65084 BIRCHFIELD

Data Information presented below is based on the allotment weighted average of range condition and similarity index ratings for the years included in the allotment monitoring evaluations. The trendline is based on linear regression for each data set.

Year	Range Condition	Similarity Index
1981	52.53	40.86
1985	43.98	37.89
1990	56.87	55.18
1995	56.60	56.70
2001	50.14	39.09
2005	50.30	39.43

